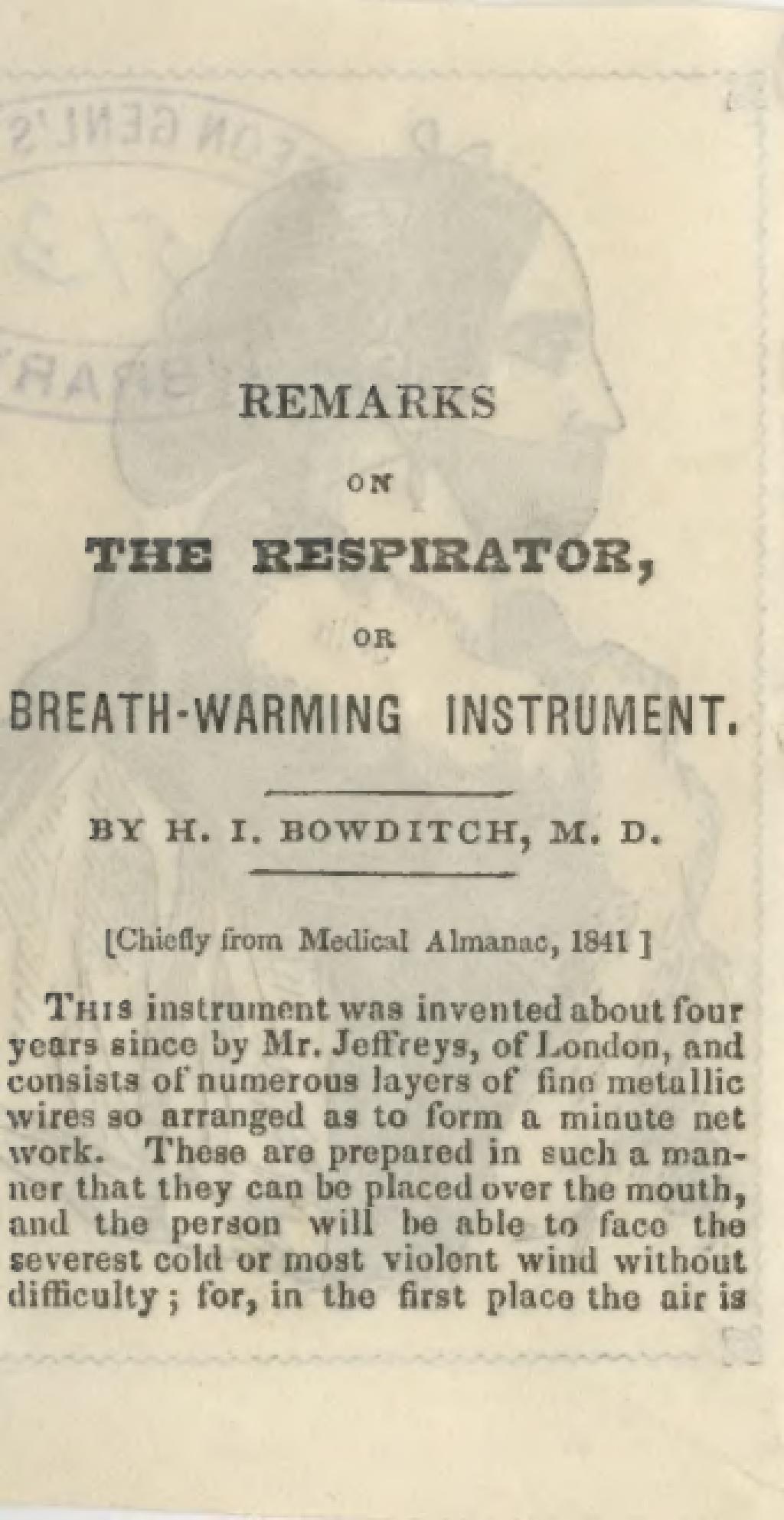






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**REMARKS**  
ON  
**THE RESPIRATOR,**  
OR  
**BREATH-WARMING INSTRUMENT.**

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BY H. I. BOWDITCH, M. D.

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[Chiefly from Medical Almanac, 1841.]

THIS instrument was invented about four years since by Mr. Jeffreys, of London, and consists of numerous layers of fine metallic wires so arranged as to form a minute net work. These are prepared in such a manner that they can be placed over the mouth, and the person will be able to face the severest cold or most violent wind without difficulty; for, in the first place the air is

warmed, and in the second, the violence of the current is wholly checked by the various angles each particle of air meets with in its passage through the instrument. The theory of its operation is this, the wire, becoming heated by the expired air, in its turn, warms the external atmosphere that is drawn into the lungs. There are two kinds, one called the oral, because it covers merely the mouth, the other, orinasal, because it covers the nostrils, as well as the mouth. As it may be imagined, the instrument is of great service to all who are liable to cough on a change of temperature, and it is very extensively used in England. So far as I can learn the first one introduced into Boston, was brought here towards the latter part of the winter of 1838, but even now comparatively few individuals know its value as a palliative in *all* diseases of the chest and air passages. Various good results have been observed to follow its use. I shall speak of some of those results as evinced by thirteen persons who have used it in Boston.

All, without exception, speak very warmly in favor of the instrument. One who was very much troubled with inflammatory affections of the mouth and gums, owing frequently to exposure to cold air, was very much relieved. Every one knows the pang excited by a current of cold air upon a decayed tooth, but with the respirator all this

difficulty is avoided. All, so far as I can learn, have found that they were prevented from having an access of coughing from sudden changes of temperature. One told me that he could scarcely believe that so simple a contrivance could be of any importance, and therefore once had recourse to his handkerchief as a substitute, and the result was a violent attack of coughing. One individual had spent the winter of 1838-9 in the South, and prepared to go again last season, but being persuaded to keep at exercise in the open air of this country, and with the respirator constantly in use when out of doors, he was very comfortable during the winter. Another had been unable to sweep her room without great fatigue, and frequently an attack of asthma. Upon using an instrument that I had made for her, and which was of a less complicated character than the English, (being made of tin instead of silver or gold) she was able to arrange a number of apartments without any difficulty of respiration, and with much less fatigue than she had previously experienced in attending to one room merely.

This leads me to another suggestion made by one patient, who told me that before beginning to use this instrument, she was frequently so exhausted by a short walk, that she found it impossible to speak or attend to anything when she arrived at

her place of destination. With the use of the respirator she walks with ease. Again, a sensation of warmth is diffused over the whole system by the same means, so that the patient observes instantly when the respirator is off from the mouth, by the sensation of coldness in the chest or over the whole frame.

Another point I will mention which seems to me to be important, though less so to the physician than to his patient. One individual informs me that after beginning to use the respirator, his physician's bill for attendance upon him was much less than it had been for many years previous, solely as was believed, in consequence of being able to go out without having an attack of bronchitis supervene. The same person now walks instead of riding, whereby another item of expense is materially diminished. Here then are some of the advantages resulting from the use of the Respirator.

So much for what I have observed. Mr. Jeffreys promises much more than this. The respirator, according to him, keeps the inspired air of a uniform moisture, for, if the external air be very dry the particles of air drawn through a net-work slightly moistened by the breath, will become moist enough for comfortable inhalation. The reverse takes place in too damp and cold an atmosphere, and the chilliness of the whole frame, caused by such, is wholly re-

moved. Mr. J. also recommends it to those affected by cough at night, and also to that more numerous class, those liable to cold feet, and as he says, with much benefit.

"The great value of the respirator," says Mr. Jeffreys, "as one of the means of curing disorders of the chest, has led many persons to suppose that it was suited for invalids only; whereas, it is of the greatest value to a person in health, who ought to have it at hand to be put on when leaving a warm church or house at night, as he does a great coat, especially if he is to ride in an open carriage or chaise. It is on such occasions that the first cold is caught by a healthy person, and it would be far better that the attack should be prevented than have it to be cured afterwards."

"It is a great mistake to suppose that a person will be made delicate by the respirator. So far is this from being the case that many delicate persons by using it have grown independent of its use."

"A curious and important fact must not be omitted, however incredible it may at first appear, namely, that the respirator tends to warm the whole body, as well as to guard the lungs. This fact is noticed by a great many wearers, and it gives the respirator additional value to travellers on coaches, being to many persons more warming than a second great coat."

I cannot vouch for the truth of all the above statements, but this last fact has been noticed by one gentleman who resides in this country, and has used the respirator. He is a public speaker, but is in no wise diseased in the lungs. He finds the instrument a great comfort to him, when he first comes in contact with the cold air after addressing a crowded audience in a heated room. May not the respirator be the means of preventing, if not of curing, the Minister's Ail so much discussed of late in our Boston Medical Journal. The same gentleman has observed that he was warmer when he used it than when he did not. Not a few of the invalids have likewise noticed the fact.

But I have thought whether a similar apparatus made of coarser materials might not be used in some professions in which the lungs are peculiarly exposed. A gentleman who was accustomed to using the respirator was suddenly alarmed with the appearance of a very dense smoke in one of the apartments of the house in which he resided. Seizing the respirator he entered the room and without any difficulty of breathing extinguished the fire. Could not therefore our hosemen attached to the fire engines have something similar to use, when compelled to enter into situations like that above mentioned? The instrument should

be made of coarse wire painted, to prevent it from oxidizing when washed to clear out the interstices.

May not the orinasal instrument be likewise useful to the steel grinders and workers in white lead?

### PROFESSIONAL TESTIMONIAL.

"MR. JEFFREYS's instrument, 'The Respirator,' having been submitted to our inspection, we find it to be an instrument invented by him for the highly desirable object of warming the air inhaled by those invalids to whom the breathing of cold air is distressing and injurious. We consider the instrument to be founded on strictly philosophical principles; and we admire in the execution of it, both the rigid adherence to these principles, and the delicacy of the workmanship. We believe it to be well calculated to effect its object, and we recommend it to the notice of the large class of invalids for whose comfort it is constructed, and who are in urgent need of the means whereby they may enjoy air and exercise, and follow their avocations abroad."

This testimonial is signed by the gentlemen whose names are placed below:

- BABINGTON B. G., M. D. F. R. S.  
 BRODIE SIR BENJ. BART., F. R. S.  
 BURNETT, SIR WILLIAM, K. C. N.  
 CARLISLE SIR ANTHONY, F. R. S.  
 CHAMBERS, W. F., M. D. F. R. S.  
 CLARK, SIR JAMES, BART. M. D. F. R. S.  
 CLARKE, SIR CHARLES M., BART. F. R. S.  
 CONQUEST, J. T., M. D.  
 COOPER, SIR A., BART. F. R. S.  
 DANIELL, J. F., F. R. S.  
 DAVIES, THOMAS, M. D.  
 EARLE, HENRY, ESQ. F. R. S.  
 ELLIOTSON, JOHN, M. D. F. R. S.  
 GORDON, THEODORE, M. D.  
 HOLLAND, H., M. D. F. R. S.  
 HOPE, JAMES, M. D. F. R. S.  
 HUME, J. R., M. D.  
 JOHNSON, JAMES, M. D.  
 JULIUS, GEO. C., M. D.  
 LISTON, ROBERT, ESQ.  
 LLOYD, E. A., ESQ.  
 M'GRIGOR, SIR JAMES, BART.  
 MACLEOD, RODERICK, M. D.  
 MAYO, THOMAS, M. D. F. R. S.  
 EAYO, HERBERT, ESQ. F. R. S.  
 PARIS, J. AYRTON, M. D. F. R. S.  
 SEYMOUR, EDWARD, M. D.  
 THOMSON, A. T., M. D.  
 THOMSON, H., M. D.  
 TRAVERS, BENJAMIN, ESQ. F. R. S.  
 WATSON, T., M. D.

## DIRECTIONS FOR THE USE OF THE RESPIRATOR.

1. Make the Respirator fit exactly the front part of the mouth, by bending or straightening it.
2. Draw the strings that pass through those portions of the instrument, which rest above and below the lips, so tightly that the lips shall not touch the wires.
3. Arrange the ties, belonging to the silk covering, in such a way as will make the covering aid in the perfect exclusion of all external air except that which passes through the instrument.
4. In using the elastic cord for the suspension of the instrument, pass the *cord* round the neck, and the *ribbon* over the head, shortening or lengthening the ribbon according to circumstances.
5. After using the instrument, dry the sponge that is on the inside and lower edge of it, by pressing a linen handkerchief upon it and wipe *delicately* the wires.
6. When soiled, unpin the silk front, and wash the leather with a little *thin* soap-suds.

## PRICES OF THE RESPIRATOR.

### ORAL RESPIRATOR,

*For the Mouth only, Medium Power, in general use.*

	Small Size.	Large Size.
Superior quality, (silver)	\$10,50	\$13,00
Second quality, (plated)	7,00	8,00
Third quality, (tin)	3,50	4,00

### ORINASAL RESPIRATOR.

*For the Mouth and Nostrils, chiefly used during sleep to allay cough.*

Superior quality,	\$13,50	\$15,00
Second quality,	8,00	9,50
Third quality,	5,50	6,50

To suit persons who desire the most expensive materials, silver instruments faced with gold wire are manufactured.

By means of an agency that I have in London, I hope to have constantly a supply of the English Respirators at the above prices. Letters from the country (post paid) directed to H. I. Bowditch, M. D. 8 Otis Place, Boston, will be answered, but it must be remembered that owing to necessary arrangements in England no order can be attended to unless the money be paid in advance. Applications in the City, either at my office, or at the Infirmary for Diseases of the Lungs, 13 School Street.

FEB. 16, 1841.

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